BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Karighattam et al.

Serial No.:   09/905,132

Filed: July 13, 2001

Group Art Unit: 2664

Before the Examiner: Lee, Andrew Chung Cheung

Title: MECHANISM TO STRIP LARQ HEADER AND PRESERVE
                       LARQ HEADER IN STATUS FRAME

APPEAL BRIEF

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I.   REAL PARTY IN INTEREST

The real party in interest is Advanced Micro Devices, Inc., which is the assignee of the entire right, title and interest in the above-identified patent application.

II.   RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellants, Appellants' legal representative or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III.   STATUS OF CLAIMS

Claims 1-12 are pending in the Application. Claims 4, 7 and 11 are allowed. Claims 1-3, 5-6, 8-10 and 12 stand rejected. Claims 1-3, 5-6, 8-10 and 12 are appealed.

IV.   STATUS OF AMENDMENTS

Appellants have submitted an amendment with a mailing date of March 27, 2006 following receipt of the final rejection with a mailing date of February 6, 2006. The amendment amended claims 4, 7 and 11 to be rewritten in independent form.

V.   SUMMARY OF CLAIMED SUBJECT MATTER

In one embodiment of the present invention, a method for supporting frame priority in a home phone line network, comprising the step of detecting a limited automatic repeat request (LARQ) header in a frame with a priority tag. Specification, page 5, line 13 – page 6, line 5; Figure 3, step 302. The method may further comprise stripping the LARQ header and a frame check sequence (FCS) in the frame with the priority tag. Specification, page 5, line 13 – page 6, line 5; Figure 3, step 304. The method may further comprise recalculating the FCS for the stripped frame with the priority tag. Specification, page 5, line 13 – page 6, line 5; Figure 3, step 306. The method may further comprise adding the recalculated FCS to the stripped frame with the priority tag. Specification, page 5, line 13 – page 6, line 5; Figure 3, step 306.

In another embodiment of the present invention, a home phone line controller comprises a first logic block for detecting a LARQ header in a frame with a priority tag. Specification, page 6, line 13 – page 7, line 9; Figure 4, element 402. The home phone line controller may further comprise a second logic block for stripping the LARQ header and a FCS in the frame with the priority tag. Specification, page 6, line 13 – page 7, line 9; Figure 4, element 404. The home phone line controller may further comprise a third logic block for recalculating the FCS for the stripped frame with the priority tag and for adding the recalculated FCS to the stripped frame with the priority tag. Specification, page 6, line 13 – page 7, line 9; Figure 4, element 408.

In another embodiment of the present invention, a system comprises an Ethernet controller. Specification, page 2, lines 3-13; Figure 1, element 112. The system may further comprise a home phone line network controller, where the home phone line network controller comprises a first logic block for detecting a LARQ

header in a frame with a priority tag. Specification, page 6, line 13 – page 7, line 9; Figure 4, element 402. The home phone line network controller may further comprise a second logic block for stripping the LARQ header and a FCS in the frame with the priority tag. Specification, page 6, line 13 – page 7, line 9; Figure 4, element 404. The home phone line network controller may further comprise a third logic block for recalculating the FCS for the stripped frame with the priority tag and for adding the recalculated FCS to the stripped frame with the priority tag. Specification, page 6, line 13 – page 7, line 9; Figure 4, element 408.

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 2, 3, 5, 6, 8, 9, 10 and 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Mallory et al. (U.S. Patent No. 6,877,043) (hereinafter "Mallory") in view of Szczepanek (U.S. Patent No. 6,414,956).

VII.   ARGUMENT

A.   Claims 1, 2, 3, 5, 6, 8, 9, 10 and 12 are improperly rejected under 35 U.S.C. §103(a) as being unpatentable over Mallory in view of Szczepanek.

The Examiner has rejected claims 1-3, 5, 6, 8-10 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Mallory in view of Szczepanek. Office Action (2/6/2006), page 2. Appellants respectfully traverse these rejections for at least the reasons stated below.

1.   Mallory and Szczepanek, taken singly or in combination, do not teach or suggest the following claim limitations.

a.   Claims 1, 5 and 9 are patentable over Mallory in view of Szczepanek.

Appellants respectfully assert that Mallory and Szczepanek, taken singly or in combination, do not teach or suggest "detecting a limited automatic repeat request (LARQ) header in a frame with a priority tag" as recited in claim 1 and similarly in claims 5 and 9. The Examiner cites column 21, line 67 – column 22, line 15; column

36, lines 26-38; column 37, lines 54-64; column 39, lines 36-38 and column 40, lines 19-22 of Mallory as teaching the above-cited claim limitation. Office Action (2/6/2006), pages 2 and 4. Appellants respectfully traverse.

Mallory instead teaches that the carrier sense detects the starting and ending times of a valid frame transmission on the wire. Column 21, line 67 – column 22, line 1. Mallory further teaches that the collision detection detects the presence of a valid frame transmission, and for all stations, including non-transmitting stations, detects the received fragment that represents a transmission truncated by a collision. Column 22, lines 4-9. Mallory further teaches that when the LARQ protocol is in use, CSA looks at the LL priority of the frame as it would normally be sent to the driver. Column 36, lines 28-31. Mallory further teaches that the LL priority of a frame at the sender is conveyed to the receiving station in order to allow proper recovery of link layer protocol at the receiver. Column 37, lines 54-56. Mallory further teaches that the LARQ functions as an adaptation layer between the Ethernet link layer (layer 2) and the IP network layer (layer 3). Column 39, lines 33-35. Mallory further teaches that it is commonly implemented in the device driver. Column 39, lines 35-36. Mallory further teaches that stations implement LARQ per "LARQ channel", where a LARQ Channel is identified by the tuple {source address, destination address, priority}. Column 39, lines 36-38. Mallory further teaches that there is no explicit channel setup procedure. Column 40, line 19. Mallory further teaches that a new channel is implicitly defined when a station chooses to send LARQ encapsulated frames for a new combination of DA, SA and link layer priority. Column 40, lines 19-22.

Hence, Mallory teaches that stations implement LARQ per "LARQ channel", where a LARQ Channel is identified by the tuple. Identifying a LARQ Channel is not the same as detecting a LARQ header in a frame. Further, Mallory teaches that when the LARQ protocol is in use, CSA looks at the LL priority of the frame as it would normally be sent to the driver. This is not the same as detecting a LARQ header in a frame with a priority tag. Further, Mallory teaches that the LL priority of a frame at the sender is conveyed to the receiving station in order to allow proper

4

recovery of link layer protocol at the receiver. This is not the same as detecting a LARQ header in a frame with a priority tag. Neither is there any language in the cited passages that teaches detecting a LARQ header in a frame with a priority tag. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 1, 5 and 9, since the Examiner is relying upon an incorrect, factual predicate in support of the rejections. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Appellants further assert that Mallory and Szczepanek, taken singly or in combination, do not teach or suggest "stripping the LARQ header and a frame check sequence (FCS) in the frame with the priority tag" as recited in claim 1 and similarly in claims 5 and 9. The Examiner cites column 39, lines 58-60 and column 41, lines 51-67 of Mallory as teaching the above-cited claim limitation. Office Action (2/6/2006), page 2. Appellants respectfully traverse.

Mallory instead teaches that all stations are capable of removing LARQ headers from received frames (de-encapsulating the original payloads). Column 39, lines 58-60. Mallory further teaches that for the send to process a NACK control frame the priority and Original Destination Address (NACK_DA) are read from the LARQ NACK header. Column 40, lines 52-54. Mallory further teaches that the logical channel state information for the sender channel is accessed, where the channel DA is the NACK_DA and the channel SA is the Ethernet DA from the Nack control frame. Column 40, lines 54-57. Mallory further teaches that the NACK count in the LARQ header indicates the number of sequence numbers requested for retransmission. Column 40, lines 54-59.

Hence, Mallory teaches that removing LARQ headers. However, there is no language in the cited passages that teaches stripping a frame check sequence. Neither is there any language in the cited passages that teaches stripping a frame check sequence in the frame with the priority tag. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 1, 5 and 9, since the

Examiner is relying upon an incorrect, factual predicate in support of the rejections. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Appellants further assert that Mallory and Szczepanek, taken singly or in combination, do not teach or suggest "recalculating the FCS for the stripped frame with the priority tag" as recited in claim 1 and similarly in claims 5 and 9. The Examiner cites Figure 3 and column 3, lines 31-36 and 47-53 of Szczepanek as teaching the above-cited claim limitation. Office Action (2/6/2006), page 2. Appellants respectfully traverse and assert that Szczepanek instead teaches that if this information was a true representation of the IEEE 802.1Q header then the first 2 of these 4 bytes would be a tag protocol identifier (TPID) field equal to the Ethernet-encoded IEEE 802.1 QTagType, which is defined by the IEEE 802.1Q standard to be the constant 81.00 (hex). Column 3, lines 31-36. Szczepanek further teaches that when each packet is transmitted, the MAC layer of the transmitting device computes a frame check sequence value based on the content of the packet. Column 3, lines 47-50. Szczepanek further teaches that if the FCS values differ, the packet is assumed to have been corrupted and is counted as a CRC error. Column 3, lines 51-53.

There is no language in the cited passages that teaches <u>recalculating</u> a frame check sequence <u>for the stripped frame with a priority tag</u>. Instead, Szczepanek teaches that the MAC layer of the transmitting device and the receiving station compute a frame sequence value and those computed values are compared against one another.

Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 1, 5 and 9, since the Examiner is relying upon an incorrect, factual predicate in support of the rejections. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Appellants further assert that Mallory and Szczepanek, taken singly or in combination, do not teach or suggest "adding the recalculated FCS to the stripped frame with the priority tag" as recited in claim 1 and similarly in claims 5 and 9. The

Examiner cites column 3, line 57 – column 4, line 13; column 4, lines 63-67; and column 5, lines 1-12 and 24-40 of Szczepanek as teaching the above-cited claim limitation. Office Action (2/6/2006), page 3. Appellants respectfully traverse.

Szczepanek instead teaches that the CRC bytes within the received frame while it exists in the switch are used for the frame but is calculated excluding the 4 bytes immediately following the source address. Column 3, lines 57-60. Szczepanek further teaches that if the CRC was generated on-the-fly for a frame excluding the header at transmit time then the frames would be sent with a newly-generated perfect CRC while there was still 4 bytes of the frame left to check. Column 3, line 66 – column 4, line 3. Szczepanek further teaches that the CRC is generated for the frame. Column 4, line 63. Szczepanek further teaches that the generation of the CRC does not, however, include the tag header whether or not the tag header was inserted when the frame was received. Column 4, lines 63-66. Szczepanek further teaches that if the tag header indicator is asserted, meaning a tag header was added to the frame upon receipt by the switching device, then the tag header is stripped from the frame and the frame is transmitted. Column 5, lines 3-7. Szczepanek further teaches that the switching device includes a tag header processing means operable to insert a tag header into frames that enter the switching device without a tag header and a CRC processing means operable to calculate a CRC for the frame excluding the tag header for use while the frame is being processed within the switching device. Column 5, lines 22-30.

As stated above, there is no language in the cited passages that teaches recalculating a frame check sequence (FCS) for the stripped frame with the priority tag. Neither is there any language in the cited passages that teaches adding the recalculated FCS to the stripped frame with the priority tag. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 1, 5 and 9, since the Examiner is relying upon an incorrect, factual predicate in support of the rejections. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

7

b. Claims 2, 3, 6, 8, 10 and 12 are patentable for at least the reasons that claims 1, 5 and 9 are patentable.

Claims 2 and 3 depend from claim 1 and hence are patentable over Mallory in view of Szczepanek for at least the reasons stated in Section A.1.a. Claims 6 and 8 depend from claim 5 and hence are patentable over Mallory in view of Szczepanek for at least the reasons stated in Section A.1.a. Claims 10 and 12 depend from claim 9 and hence are patentable over Mallory in view of Szczepanek for at least the reasons stated in Section A.1.a.

c. Claims 2, 6 and 10 are patentable over Mallory in view of Szczepanek.

Appellants respectfully assert that Mallory and Szczepanek, taken singly or in combination, do not teach or suggest "placing information in the LARQ header in a frame status frame which will follow the stripped frame with the priority tag" as recited in claim 2 and similarly in claims 6 and 10. The Examiner cites column 39, lines 35-40; column 40, lines 19-26 and column 41, lines 51-55 of Mallory as teaching the above-cited claim limitation. Office Action (2/6/2006), page 3. Appellants respectfully traverse.

Mallory instead teaches that the LARQ functions as an adaptation layer between the Ethernet link layer (layer 2) and the IP network layer (layer 3). Column 39, lines 33-35. Mallory further teaches that it is commonly implemented in the device driver. Column 39, lines 35-36. Mallory further teaches that stations implement LARQ per "LARQ channel", where a LARQ Channel is identified by the tuple {source address, destination address, priority}. Column 39, lines 36-38. Mallory further teaches that there is no explicit channel setup procedure. Column 40, line 19. Mallory further teaches that a new channel is implicitly defined when a station chooses to send LARQ encapsulated frames for a new combination of DA, SA and link layer priority. Column 40, lines 19-22. Mallory further teaches that with regard to receiver LARQ data or reminder frame, the channel state information is looked up based on the Ethernet DA and SA in the received frame plus the Link Layer priority from the LARQ header. Column 41, lines 51-55.

8

Hence, Mallory teaches that stations implement LARQ per "LARQ channel", where a LARQ Channel is identified by the tuple. There is no language in the cited passages that teaches placing information in a LARQ header. Neither is there any language in the cited passages that teaches placing information in a LARQ header in a frame status frame. Neither is there any language in the cited passages that teaches placing information in a LARQ header in a frame status frame which will follow the stripped frame with the priority tag. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 2, 6 and 10, since the Examiner is relying upon an incorrect, factual predicate in support of the rejections. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

        d.   Claim 3 is patentable over Mallory in view of Szczepanek.

Appellants respectfully assert that Mallory and Szczepanek, taken singly or in combination, do not teach or suggest "sending the stripped frame with the priority tag and the recalculated FCS to an Ethernet controller" as recited in claim 3. The Examiner cites to Figures 4A, 30; column 10, lines 37-57; column 21, line 67; column 22, lines 1-15; column 23, lines 32-41; and column 46, lines 23-29 of Mallory as teaching the above-cited claim limitation. Office Action (2/6/2006), page 3. Appellants respectfully traverse.

Mallory instead teaches a controller that is a fully integrated MAC/PHY device that transmits and receives data. Column 10, lines 37-41. Mallory further teaches that the carrier sense detects the staring and ending times of a valid frame transmission on the wire. Column 21, line 67 – column 22, line 1. Mallory further teaches that this is used to determine when frames are present on the channel/transmission medium, as well as being used to determine the presence of a Backoff Signal in a Signal Slot. Column 22, lines 1-4. Mallory further teaches that the V2 embodiment can be used for carrying media streams, such as video and audio. Column 23, lines 32-33. Mallory further teaches that the carrier sense consists of two

components: one which detects the start of a frame and one which detects the end of a frame. Column 46, lines 23-25.

There is no language in the cited passages that teaches sending a stripped frame with a priority tag. Neither is there any language in the cited passages that teaches sending a stripped frame with a priority tag and a recalculated FCS. Neither is there any language in the cited passages that teaches sending a stripped frame with a priority tag and a recalculated FCS to an Ethernet controller. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claim 3, since the Examiner is relying upon an incorrect, factual predicate in support of the rejections. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

> e. Claims 8 and 12 are patentable over Mallory in view of Szczepanek.

Appellants respectfully assert that Mallory and Szczepanek, taken singly or in combination, do not teach or suggest "wherein an asserted fourth signal to the third logic block enables the recalculation of the FCS" as recited in claim 8 and similarly in claim 12. The Examiner cites element 404 of Figure 4 and column 6, lines 31-33 of Szczepanek as teaching the above-cited claim limitation. Office Action (2/6/2006), page 4. Appellants respectfully traverse and assert that Szczepanek instead teaches generating a CRC for the third modified frame to generate a fourth modified frame. Column 6, lines 31-32. Furthermore, Szczepanek teaches that element 404 corresponds to the CRC processing means. Column 5, lines 35-40. There is no language in the cited passage and Figure that teaches an asserted fourth signal to a third logic block. Neither is there any language in the cited passage and Figure that teaches an asserted fourth signal to a third logic block that enables the recalculation of the FCS. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 8 and 12, since the Examiner is relying upon an incorrect, factual predicate in support of the rejections. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

10

2.   The Examiner's motivation is insufficient to support a *prima facie* case of obviousness in rejecting claims 1-3, 5, 6, 8-10 and 12.

Most if not all inventions arise from a combination of old elements. *See In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Obviousness is determined from the vantage point of a hypothetical person having ordinary skill in the art to which the patent pertains. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Therefore, an Examiner may often find every element of a claimed invention may often be found in the prior art. *Id.* However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. *See Id.* In order to establish a *prima facie* case of obviousness, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). That is, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some case, the nature of the problem to be solved, to modify the reference or to combine reference teachings. *See In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Whether the Examiner relies on an express or an implicit showing, the Examiner must provide particular findings related thereto. *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

The Examiner admits that Mallory does not teach recalculating the FCS for the stripped frame with the priority tag; and adding the recalculated FCS to the stripped frame with the priority tag, as recited in claim 1 and similarly in claims 5 and 9. Office Action (2/6/2006), page 2. The Examiner's motivation for modifying Mallory with Szczepanek to include the above-cited claim limitation is "in order to provide a method, system and apparatus for communicating data over shared media access (as suggested by Szczepanek, see column 1, lines 5-6)." Office Action (2/6/2006), page 3. The Examiner's motivation is insufficient to support a *prima facie* case of obviousness for at least the reasons stated below.

11

The Examiner's motivation ("to provide a method, system and apparatus for communicating data over shared media access") does not provide reasons, as discussed further below, that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Mallory to recalculate the FCS for the stripped frame with the priority tag; and to add the recalculated FCS to the stripped frame with the priority tag, as recited in claims 1, 5 and 9. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-3, 5, 6, 8-10 and 12. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

As stated above, the Examiner cites column 1, lines 5-6 of Szczepanek as providing the motivation to modify Mallory to include the above-cited claim limitation. Office Action (2/6/2006), page 3. Szczepanek teaches that the present invention is directed to a method, system and apparatus for communicating data over shared media access. Column 1, lines 5-6. Hence, the Examiner's cited motivation teaches that the present invention of Szczepanek is directed to a method, system and apparatus for communicating data over shared media access.

Mallory addresses the problem of distributing sets of collision resolution parameters in a frame-based communications network. Column 3, lines 49-52. The Examiner has not provided any reasons as to why one skilled in the art would modify Mallory, which teaches distributing sets of collision resolution parameters in a frame-based communications network, to recalculate the FCS for the stripped frame with the priority tag; and to add the recalculated FCS to the stripped frame with the priority tag (Examiner admits that Mallory does not teach these claim limitations). The Examiner's motivation ("that the present invention of Szczepanek is directed to a method, system and apparatus for communicating data over shared media access") does not provide such reasons. The Examiner has not provided any rationale connection between the Examiner's motivation ("that the present invention of Szczepanek is directed to a method, system and apparatus for communicating data over shared media access") and the problems addressed by Mallory (addresses the problem of distributing sets of collision resolution parameters in a frame-based

communications network). Neither has the Examiner provided any rationale connection between the Examiner's motivation and the missing claim limitations (to recalculate the FCS for the stripped frame with the priority tag; and to add the recalculated FCS to the stripped frame with the priority tag). Hence, the Examiner's motivation does not provide reasons as to why one skilled in the art would modify Mallory, that overcomes the problems of distributing sets of collision resolution parameters in a frame-based communications network, to recalculate the FCS for the stripped frame with the priority tag; and to add the recalculated FCS to the stripped frame with the priority. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-3, 5, 6, 8-10 and 12. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

Further, the Examiner admits that Mallory does not teach where an asserted fourth signal to the third logic block enables the recalculation of the FCS, as recited in claim 8 and similarly in claim 12. Office Action (2/6/2006), page 3. The Examiner's motivation for modifying Mallory with Szczepanek to include the above-cited claim limitation is "to provide an improved switching device operating in a shared media environment." Office Action (2/6/2006), page 4. The Examiner's motivation is insufficient to support a *prima facie* case of obviousness for at least the reasons stated below.

The Examiner has not presented a source for his motivation for modifying Mallory with Szczepanek to include the aspect of having an asserted fourth signal to the third logic block enable the recalculation of the FCS, as recited in claims 8 and 12. The motivation to modify Mallory must come from one of three possible sources: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of person of ordinary skill in the art. *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998). The Examiner has not provided any evidence that his motivation comes from any of these sources. Instead, the Examiner is relying upon his own subjective opinion which is insufficient to support a *prima facie* case of obviousness. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 8 and 12. *Id.*

Further, the Examiner's motivation ("to provide an improved switching device operating in a shared media environment") does not provide reasons, as discussed further below, that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Mallory to include the aspect of having an asserted fourth signal to the third logic block enable the recalculation of the FCS, as recited in claims 8 and 12. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 8 and 12. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

As stated above, Mallory addresses the problem of distributing sets of collision resolution parameters in a frame-based communications network. Column 3, lines 49-52. The Examiner has not provided any reasons as to why one skilled in the art would modify Mallory, which teaches distributing sets of collision resolution parameters in a frame-based communications network, to include the aspect of having an asserted fourth signal to the third logic block enable the recalculation of the FCS (Examiner admits that Mallory does not teach this claim limitation). The Examiner's motivation ("to provide an improved switching device operating in a shared media environment") does not provide such reasons. The Examiner has not provided any rationale connection between the Examiner's motivation ("to provide an improved switching device operating in a shared media environment") and the problems addressed by Mallory (addresses the problem of distributing sets of collision resolution parameters in a frame-based communications network). Neither has the Examiner provided any rationale connection between the Examiner's motivation and the missing claim limitation (to include the aspect of having an asserted fourth signal to the third logic block enable the recalculation of the FCS). Hence, the Examiner's motivation does not provide reasons as to why one skilled in the art would modify Mallory, that overcomes the problems of distributing sets of collision resolution parameters in a frame-based communications network, to include the aspect of having an asserted fourth signal to the third logic block enable the recalculation of the FCS.

14

Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 8 and 12. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

VIII. CONCLUSION

For the reasons noted above, the rejections of claims 1, 2, 3, 5, 6, 8, 9, 10 and 12 are in error.   Appellants respectfully request reversal of the rejections and allowance of claims 1-12.

Respectfully submitted,

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CLAIMS APPENDIX

1.   A method for supporting frame priority in a home phone line network, comprising the steps of:

        (a)   detecting a limited automatic repeat request (LARQ) header in a frame with a priority tag;

        (b)   stripping the LARQ header and a frame check sequence (FCS) in the frame with the priority tag;

        (c)   recalculating the FCS for the stripped frame with the priority tag; and

        (d)   adding the recalculated FCS to the stripped frame with the priority tag.

2.   The method of claim 1, wherein the stripping step (b) further comprises:

        (b1)   placing information in the LARQ header in a frame status frame which will follow the stripped frame with the priority tag.

3.   The method of claim 1, further comprising:

        (e)   sending the stripped frame with the priority tag and the recalculated FCS to an Ethernet controller.

4.   A method for supporting frame priority in a home phone line network, comprising the steps of:

        (a)   detecting a limited automatic repeat request (LARQ) header in a frame with a priority tag;

        (b)   stripping the LARQ header and a frame check sequence (FCS) in the frame with the priority tag;

        (c)   recalculating the FCS for the stripped frame with the priority tag;

        (d)   adding the recalculated FCS to the stripped frame with the priority tag;

        (e)   sending the stripped frame with the priority tag and the recalculated FCS to an Ethernet controller; and

        (f)   sending the stripped frame with the priority tag and the recalculated FCS to an appropriate priority queue according to the priority tag.

5.   A home phone line controller, comprising:

a first logic block for detecting a LARQ header in a frame with a priority tag;

a second logic block for stripping the LARQ header and a FCS in the frame with the priority tag; and

a third logic block for recalculating the FCS for the stripped frame with the priority tag and for adding the recalculated FCS to the stripped frame with the priority tag.

6.   The controller of claim 5, wherein an asserted first signal to the first logic block indicates that the LARQ header is enabled and must be stripped from the frame with the priority tag.

7.   A home phone line controller, comprising:

a first logic block for detecting a LARQ header in a frame with a priority tag;

a second logic block for stripping the LARQ header and a FCS in the frame with the priority tag; and

a third logic block for recalculating the FCS for the stripped frame with the priority tag and for adding the recalculated FCS to the stripped frame with the priority tag;

wherein the first logic block asserts a second signal and a third signal to the second logic block, wherein the second signal indicates that the FCS is to be stripped from the frame with the priority tag, wherein the third signal indicates that the LARQ header is to be stripped from the frame with the priority tag.

8.   The controller of claim 5, wherein an asserted fourth signal to the third logic block enables the recalculation of the FCS.

9.   A system, comprising:

an Ethernet controller; and

a home phone line network controller, wherein the home phone line network controller comprises:

a first logic block for detecting a LARQ header in a frame with a priority tag;

a second logic block for stripping the LARQ header and a FCS in the frame with the priority tag; and

a third logic block for recalculating the FCS for the stripped frame with the priority tag and for adding the recalculated FCS to the stripped frame with the priority tag.

10. The system of claim 9, wherein an asserted first signal to the first logic block indicates that the LARQ header is enabled and must be stripped from the frame with the priority tag.

11. A system, comprising:

an Ethernet controller; and

a home phone line network controller, wherein the home phone line network controller comprises:

a first logic block for detecting a LARQ header in a frame with a priority tag;

a second logic block for stripping the LARQ header and a FCS in the frame with the priority tag; and

a third logic block for recalculating the FCS for the stripped frame with the priority tag and for adding the recalculated FCS to the stripped frame with the priority tag;

wherein the first logic block asserts a second signal and a third signal to the second logic block, wherein the second signal indicates that the FCS is to be stripped from the frame with the priority tag, wherein the third signal indicates that the LARQ header is to be stripped from the frame with the priority tag.

12. The system of claim 9, wherein an asserted fourth signal to the third logic block enables the recalculation of the FCS.

EVIDENCE APPENDIX

No evidence was submitted pursuant to §§1.130, 1.131, or 1.132 of 37 C.F.R. or of any other evidence entered by the Examiner and relied upon by Appellants in the Appeal.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings to the current proceeding.

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